

Date: Fri, 11 Mar 94 04:30:13 PST  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V94 #61  
To: Ham-Ant

Ham-Ant Digest                      Fri, 11 Mar 94                      Volume 94 : Issue    61

Today's Topics:

ARRL books or other sources in the Net?  
Best cars for mobile HF/VHF??  
Cheap 2M portable antenna (3 msgs)  
Comet SB4, what do you think ?  
Grounding and lightning protection  
LUMINA APV, mobile antenna - HELP  
NOAA Antenna Advice please  
One or two antennas for mobile op?  
phase shifters, and time delay elements. (2 msgs)  
variable phase shifters, time delay elements

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>

Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 10 Mar 94 17:31:18 GMT  
From: news.cerf.net!pravda.sdsc.edu!acsc.com!wp-sp.nba.trw.com!elroy.jpl.nasa.gov!  
swrinde!cs.utexas.edu!howland.reston.ans.net!europa.eng.gtefsd.com!  
news.msfc.nasa.gov!bcm!@ihnp4.ucsd.edu  
Subject: ARRL books or other sources in the Net?  
To: ham-ant@ucsd.edu

Hello,

Could some one in this group tell me if there are ftp sites or  
other sources for files like the ARRL Handbook or ARRL antenna book,  
or any other book about antennas.

I would appreciate if someone tell me where to find these, or send me the files.

Muchos thanks in advance.

Ricardo Rodriguez M.

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Date: 10 Mar 1994 23:13:01 -0500  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
howland.reston.ans.net!news.intercon.com!udel!news.udel.edu!brahms.udel.edu!not-  
for-mail@network.ucsd.edu  
Subject: Best cars for mobile HF/VHF??  
To: ham-ant@ucsd.edu

I need to replace a car and want one which 100 watts or so of HF and 50 watts or so of 2 meters or 440 will not interfere with the electronics of the vehicle. Nor do I want ignition or other noise beyond the bare minimum.

In consideration are four door sedans from the size of a Corolla up to that of a Taurus. or perhaps a minivan or small pickup. Replacing a Ford Aerostar.

Will listen to all viewpoints. Tnx a million. Bob

--

Bob Penneys, WN3K Frankford Radio Club Internet: penneys@pecan.cns.udel.edu  
Work: Ham Radio Outlet (Delaware) (800) 644-4476; fax (302) 322-8808  
Mail at home: 12 East Mill Station Drive Newark, DE 19711 USA

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Date: 10 Mar 94 18:36:00 GMT  
From: agate!howland.reston.ans.net!cs.utexas.edu!swrinde!sgiblab!cs.uoregon.edu!  
reuter.cse.ogi.edu!netnews.nwnet.net!ns1.nodak.edu!news.uoknor.edu!  
DSIBM.OKLADOT.STATE.OK.US!UDSD022@ucbvax.  
Subject: Cheap 2M portable antenna  
To: ham-ant@ucsd.edu

I brought the HT to work with me today, and found out that it doesn't work worth a flip here in the office using the ducky.  
(surprise, surprise)

I'd like to hold the spending down to a couple of bucks here.  
(I'm still waiting to buy into packet!) Can anyone recommend a cheap 2M portable antenna design?

One idea that occurs to me is to fashion a 1/4 wave dipole

from coax by folding back 1/4 wave of the outer shield. Let's see... a dipole is nominally 75 ohms. No telling what this contraption would actually be. But if the HT can handle working into the ducky (which is bound to have a high SWR), this shouldn't be too bad either... right?

Comments, anyone? Suggestions?

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Date: 10 Mar 1994 19:04:09 GMT  
From: ihnp4.ucsd.edu!news.cerf.net!pravda.sdsc.edu!nic-nac.CSU.net!  
news.Cerritos.edu!news.Arizona.EDU!helium!hlester@network.ucsd.edu  
Subject: Cheap 2M portable antenna  
To: ham-ant@ucsd.edu

In article <19940310103633UDSD022@DSIBM.OKLADOT.STATE.OK.US>, Jim Glover <UDSD022@DSIBM.OKLADOT.STATE.OK.US> wrote:  
>I'd like to hold the spending down to a couple of bucks here.  
>(I'm still waiting to buy into packet!) Can anyone  
>recommend a cheap 2M portable antenna design?

The simplest design that absolutely WORKS is the one in the ARRL Antenna Book. It's a quarter wave groundplane built on an SO-239 chassis mount connector (the one with 4 holes). Offhand I don't know the recommended dimensions, but if you solder a 19-1/2" 14 ga. wire to the center pin of the connector, and solder four of those same size and length wires to the four holes and bend them down at a 45 degree angle, you'll have it. The 14 ga. wire makes it sturdy enough to stand on its own. OR, make the radiator wire 20" long and bend it at the end to form a loop - then you can hang it from the ceiling. Fashion a length of coax with a male PL-259 on one end, and a male BNC on the other (or a PL-259 on each end, with a BNC adapter on one of them), and you're all set. The antenna itself will cost you under \$2.

If you have an Antenna Book, I believe you can find it by looking in the index under Antennas: Groundplane.

Howard "always fashionable" Lester KE7QJ

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Date: Thu, 10 Mar 1994 20:13:45 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!news.msfc.nasa.gov!  
sol.ctr.columbia.edu!jabba.ess.harris.com!news.ess.harris.com!  
su102w.ess.harris.com!harris.pander01@network.ucsd.  
Subject: Cheap 2M portable antenna  
To: ham-ant@ucsd.edu

In article <19940310103633UDSD022@DSIBM.OKLADOT.STATE.OK.US>  
UDSD022@DSIBM.OKLADOT.STATE.OK.US (Jim Glover) writes:  
>From: UDSD022@DSIBM.OKLADOT.STATE.OK.US (Jim Glover)  
>Subject: Cheap 2M portable antenna  
>Date: Thu, 10 Mar 1994 10:36

>I'd like to hold the spending down to a couple of bucks here.  
>(I'm still waiting to buy into packet!) Can anyone  
>recommend a cheap 2M portable antenna design?

>Comments, anyone? Suggestions?

I once made a fold-away dipole for 2-meters out of a collapsible TV rabbit-ear antenna. You can get them for a couple of bucks at your local radio store. Lop off the twin-lead two or three inches from where it exits the center insulator, and attach a BNC female connector. Then you can fashion some sort of mount for it, depending on where you think you'll use it (I put a suction cup on the insulator to keep it on motel room windows).

There are some really nice features about this setup:

- it folds away to about 2" x 7" x .75"
- you can attach any length of cable you like to reach your HT
- it loads up on several bands

I found the one I used to resonate reasonably on 6m, 2m, and 222 MHz. I marked the collapsing sections at the resonance lengths so I wouldn't have to take an SWR meter along.

=====  
===== Paul Anderson =====  
===== AB4VA @ N5AUV =====  
harris.pander01@ic1d.harris.com

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Date: 10 Mar 1994 14:07:40 GMT  
From: library.ucla.edu!agate!howland.reston.ans.net!pipex!sunic!EU.net!  
Germany.EU.net!netmbx.de!zib-berlin.de!news.belwue.de!news.dfn.de!  
scsing.switch.ch!swidir.switch.ch!@@ihnp4.ucsd.edu  
Subject: Comet SB4, what do you think ?  
To: ham-ant@ucsd.edu

Hello,

what do you think of this 2m/70cm antenna ? Works fine ? What about mobile / DX use ?

Thanks.

Vince (14.5 weeks and waiting)

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Date: 10 Mar 1994 21:10:44 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
howland.reston.ans.net!wupost!ukma!hsdndev!dartvax.dartmouth.edu!  
usenet@network.ucsd.edu  
Subject: Grounding and lightning protection  
To: ham-ant@ucsd.edu

I am going to be installing a VHF/UHF vertical base station antenna on the roof of my fraternity house in the next week or two. Before I do, however, I am really interested in learning about what steps I can take to help protect the house against lightning. The antenna is about 7 feet tall and the tip of the antenna will be about 40' off the ground.

Is there a book or other source of information that someone could recommend to me? While I'm not terribly worried about this (there are plenty of other structures nearby that are a lot taller than 40') I would like to take whatever reasonable precautions I can.

Thanks.

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=====  
Kenneth E. Harker N1PVB Dartmouth College Amateur Packet Radio  
kenneth.e.harker@dartmouth.edu Hinman Box 1262 n1pvb@w1et.nh.usa.na  
(603) 643-6549 Hanover, NH 03755 or n1pvb-5 on 144.99  
=====

(PGP Public Key now available on request)

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Date: Thu, 10 Mar 1994 19:31:19 GMT  
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!europa.eng.gtefsd.com!  
howland.reston.ans.net!torn!utnut!utcsri!newsflash.concordia.ca!  
canopus.cc.umanitoba.ca!bison!draco!ve4kwg@network.ucsd.  
Subject: LUMINA APV, mobile antenna - HELP  
To: ham-ant@ucsd.edu

Yvan,

One of our local radio stations uses a Lunina APV for thier traffic reports here in Winnipeg with a UHF broadcast link back to the station. I asked the engineering guy's how they managed to get a ground plane in that

"plastic box" and was told a sheet of metal foil between the headliner and the roof provided enough surface for the antenna to work off of.

73 de Kevin,VE4KWG  
Kevin Galaugher  
Winnipeg,Manitoba  
ve4kwg@draco.bison.mb.ca

ydupont@Qc.Bell.CA (Yvan Dupont) writes:

>Does anyone have a suggestion for mobile antenna to put on a Chevrolet  
>LUMINA APV? This vehicule is PLASTIC...

>What are your experience or suggestion with that kind of problem!

>Thanks,

>Yvan - VE2YDU

>Bell SYGMA, Telecom Solutions  
>30 Renaud, Loretteville (Qc) CANADA G2A 2K7  
>TEL: 418-843-7564 FAX: 418-842-9559  
>Internet: ydupont@Qc.bell.CA HAM: VE2YDU@VE2GPQ.#QBC.PQ.CAN.NA

>-----  
>Disclaimer: The opinions expressed here are mine and not my employer's.

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Date: Thu, 10 Mar 1994 17:03:08 GMT  
From: news.cerf.net!pravda.sdsc.edu!acsc.com!wp-sp.nba.trw.com!elroy.jpl.nasa.gov!  
swrinde!cs.utexas.edu!howland.reston.ans.net!torn!nott!cunews!freenet.carleton.ca!  
FreeNet.@@ihnp4.ucsd.edu  
Subject: NOAA Antenna Advice please  
To: ham-ant@ucsd.edu

Please comment on the following;

I have been trying to get NOAA and or Meteor data using a simple 137 Mhz  
J-pole with an antenna mounted GasFet pre-amp.The feed line is about 40 feet  
of RG8.Results of 24hrr/day monitoring for about 8 days has yielded nothing  
at all.

If the antenna is the problem,how much better do I have to be??A computer  
controlled 20 element Yagi seems a bit much to make but could be done.  
Problem is that I have no assurance that that is good enough.So what should  
be the next step?

Any advice would be much appreciated.Thanks in advance.Herb.

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Date: Fri, 11 Mar 94 08:58:45 GMT  
From: mnemosyne.cs.du.edu!nyx!dtock@uunet.uu.net  
Subject: One or two antennas for mobile op?  
To: ham-ant@ucsd.edu

I use an Icom IC21E (my only [vu]hf gear) mobile in my car. Off the 12V supply it supposedly gives 5w on each band. It works fine, but it could do with a little more 'oomph'! I can not afford a PA, but there is room for improvement on the antenna (currently a dual band - 1/4 wave on both bands). I could buy a bigger and better dual bander, or two single band antennas and a 'splitter'? as the HT has only a single antenna output.

Is there any advantage either way, or problems either way?

I know the splitter would have some insertion loss, but I might be able to recover that by having higher gain antennas for single bands. If I did, is there an interaction problem?

Any thoughts, suggestions, experiences welcomed, by e-mail or posting.

Thanks

David (GM0SYA)

-----  
Date: 10 Mar 94 14:37:33 GMT  
From: dog.ee.lbl.gov!agate!boulder!cnsnews!spot.Colorado.EDU!  
weverka@ucbvax.berkeley.edu  
Subject: phase shifters, and time delay elements.  
To: ham-ant@ucsd.edu

I am looking for a means providing variable phase shifters and time delay elements for some antenna experiments I am doing. This is for television frequencies, 54MHz-90MHz, 174MHz-216MHz, and 470MHz-806MHz. Mechanically tuned, or electrically tuned will do for this experiment.

Has any one ever made some kind of electrical trombone for variable time delay? I have seen trombones for GHz applications, but they are very expensive. Any ideas on how to make one for lower frequencies? I am thinking of something with a few feet of length variation.

thanks,  
-Ted

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Date: Thu, 10 Mar 1994 20:00:08 GMT  
From: ihnp4.ucsd.edu!pacbell.com!att-out!att-in!cbnews!hellman@network.ucsd.edu  
Subject: phase shifters, and time delay elements.  
To: ham-ant@ucsd.edu

In article <CMGDyL.JGI@cnsnews.Colorado.EDU>, weverka@spot.Colorado.EDU (Robert T. Weverka) writes:

>  
> I am looking for a means providing variable phase shifters and time  
> delay elements for some antenna experiments I am doing.  
> This is for television frequencies, 54MHz-90MHz, 174MHz-216MHz, and  
> 470MHz-806MHz. Mechanically tuned, or electrically tuned will do for  
> this experiment.  
>  
> Has any one ever made some kind of electrical trombone for variable time  
> delay? I have seen trombones for GHz applications, but they are very  
> expensive. Any ideas on how to make one for lower frequencies? I am  
> thinking of something with a few feet of length variation.  
>  
> thanks,  
> -Ted  
>

If you want to try using coax, figure on roughly 1 nanosec delay per foot.

Shel Darack WA2UBK  
dara@physics.att.com

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Date: 10 Mar 94 14:39:11 GMT  
From: dog.ee.lbl.gov!agate!boulder!cnsnews!spot.Colorado.EDU!  
weverka@ucbvax.berkeley.edu  
Subject: variable phase shifters, time delay elements  
To: ham-ant@ucsd.edu

I am looking for a means providing variable phase shifters and time  
delay elements for some antenna experiments I am doing.  
This is for television frequencies, 54MHz-90MHz, 174MHz-216MHz, and  
470MHz-806MHz. Mechanically tuned, or electrically tuned will do for  
this experiment.

Has any one ever made some kind of electrical trombone for variable time  
delay? I have seen trombones for GHz applications, but they are very  
expensive. Any ideas on how to make one for lower frequencies? I am  
thinking of something with a few feet of length variation.



And as in all antenna applications, low loss is important.

thanks,  
-Ted

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Date: Thu, 10 Mar 1994 15:23:03 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
howland.reston.ans.net!pipex!uknet!demon!news.sprintlink.net!direct!  
news.direct.net!kg7bk@network.ucsd.edu  
To: ham-ant@ucsd.edu

References <2d789edc@p10.life.sub.org>, <CMD1o8.5su@news.direct.net>, <fred-  
mckenzie-090394104409@k4dii.ksc.nasa.gov>t  
Subject : Re: Question about mobile antenna 40/80m

Fred McKenzie (fred-mckenzie@ksc.nasa.gov) wrote:

: I am having good results with Hustler low-power resonators...

The main reason that I changed from a Hustler to a HamStick on 40m is  
better stability with my mag mount. Then I measured a higher field strength  
with the HamStick vs the Hustler. The HamStick self-resonant coil frequency  
is supposed to be higher than the Hustler. I've never worked 75m mobile...  
It's not nice to fool Mother Nature. :-)

: I disagree with your assessment of the Lakeview HamStick...  
: If this disagrees with your reference source, I think there is reason to  
: doubt your source's credibility. 73, Fred, K4DII

I am relying on the usually reliable Kurt Sterba who writes "Aerials"  
for Worldradio. He and Maxwell agree that the Hustler is a poor design,  
compromised to achieve a low SWR. Sterba recommends HamSticks. I primarily  
work 17m-10m mobile with a 10m HamStick and an antenna tuner.

73, Cecil, kg7bk@indirect.com

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End of Ham-Ant Digest V94 #61  
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